Canadian Community Health Survey 2.1

Summary Report to the District Health Authorities

NOVA SCOTIA
Health

Canadian Community Health Survey 2.1

Summary Report to the District Health Authorities

NOVA SCOTIA
Health

© Crown copyright, Province of Nova Scotia, 2005

Published by:
Information Analysis and Reporting Section, Nova Scotia Department of Health

Published March 2005
ISBN: 0-88871-933-7

For further information contact:

Information Analysis and Reporting Section
Nova Scotia Department of Health
10th Floor, Joseph Howe Building
1690 Hollis St.
PO Box 488
Halifax, Nova Scotia
B3J 2R8

Phone (902) 424-8291
Fax (902) 424-0506

Sources for charts: *Canadian Community Health Survey (CCHS) Cycle 2.1*, Statistics Canada.

106-0 5798 /

Contents

Overview of CCHS Cycle 2.1	1
Importance of CCHS	3
Social & Physical Environments, Income & Social Status	5
Healthy Childhood Development	8
Personal Health Practices	11
Current Health Status	15
Health Services	17
Appendix 1 CCHS 2.1 Modules for Nova Scotia	20
Appendix 2 Survey Design, Sampling, and Bootstrapping	21
Appendix 3 Guide to Data Interpretation	23

District Health Authorities

Overview of CCHS Cycle 2.1

The Canadian Community Health Survey (CCHS) is a national cross-sectional survey on issues of personal health and well-being. The survey is administrated by Statistics Canada with the support of Health Canada and the Canadian Institute for Health Information (CIHI). Further, the CCHS allows for input by provinces and regional health authorities.

Data for the survey are collected in two-year cycles. The surveys in the first year are designated "*.1" (point one) surveys, and surveys in the second year are designated "*.2" (point two) surveys. In the first year (*.1 surveys), a large survey of almost 125,000 Canadians is conducted on a broad range of health topics. In the second year (*.2 surveys), a smaller survey of about 35,000 Canadians is conducted on a focused topic, e.g., mental health, nutrition, or physical measures. CCHS Cycle 2.1 is the second in a series of the larger surveys. It was collected between January and December 2003 and was released in June 2004.

The surveyed population includes household residents aged 12 and older in all provinces and territories, with the exception of populations on Indian reserves, on Canadian Forces bases, and in some remote areas.

Survey questions are arranged in modules, which are further organized as core and optional content. The core content questions are asked of respondents nationally in all health authorities.

Health authorities select the optional content questions to be asked in their jurisdictions, based on their specific areas of interest. Thus, the optional content varies by provinces and, in some cases, between health authorities within a province. In order to facilitate intra-provincial comparisons, all health authorities in Nova Scotia selected the same optional content questions for Cycle 2.1. Please see Appendix 1 for a list of the CCHS Cycle 2.1 core and optional content modules available for Nova Scotia.

Since the CCHS employs a complex sampling design, guides to CCHS sampling and to interpreting the results presented in this paper are found in Appendices 2 and 3.

Note:

The following measures, which were reported on in the *CCHS Cycle 1.1 Summary Report*, were not asked of Nova Scotia in Cycle 2.1 and therefore are not included in the *CCHS 2.1 Summary Report*:

- attempts to quit smoking
- probability of alcohol dependence
- predicted probability of being clinically depressed
- suicide consideration or attempts
- had PSA test in the last 12 months
- consulted a mental health practitioner in the last 12 months

The following measures were included in *CCHS Cycle 2.1* but were not included in *Cycle 1.1*:

- access to health care services
- food choices
- medication use
- satisfaction with life

The following measures (*Cycle 2.1*) could not be reported according to Statistics Canada Guidelines (please see Appendix 2):

- self-reported diagnosis of cancer
- self-reported diagnosis of fibromyalgia, chronic fatigue syndrome or multiple chemical sensitivities

Importance of CCHS

The CCHS is the first extensive survey of the health and well-being of Canadians to provide data for all variables at the sub-provincial level, i.e., at the Statistics Canada Health Zone level.

The data can be further manipulated to yield reliable data at the DHA level for most variables, providing decision and policy makers with rich, DHA-specific information.

Provincial health authorities have input into the questions that are asked in the CCHS, providing a unique opportunity for decision and policy makers to tailor the data content to meet their data and information needs.

This report presents DHA-level data on indicators reflective of the determinants of health as presented in *Healthy People, Healthy Communities: Using the Population Health Approach in Nova Scotia,* Summer 2002 (page 2).

Social & Physical Environment, Income & Social Status

Economic, social, and physical environmental factors play important roles in determining health. The CCHS included many questions on these determinants of health, such as income levels, income adequacy, food insecurity, and exposure to second-hand smoke (environmental tobacco smoke).

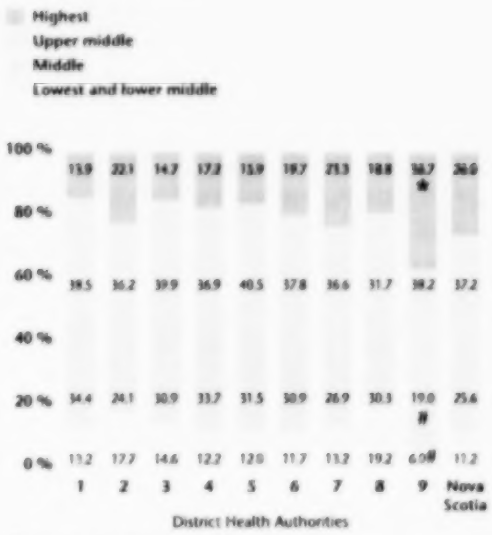
Income

Income adequacy is a measure of household income relative to household size. The CCHS has five categories (quintiles) of income adequacy: lowest, lower middle, middle, upper middle, and highest.

Households in the lower categories would have fewer resources to meet their needs, whereas those in the higher categories would have a surplus.

Most people in Nova Scotia were in the upper middle category, ranging from a low of 31.7% in DHA 8 to a high of 40.5% in DHA 5. No significant differences were reported among the DHAs in the proportions of people in this income category.

Income adequacy



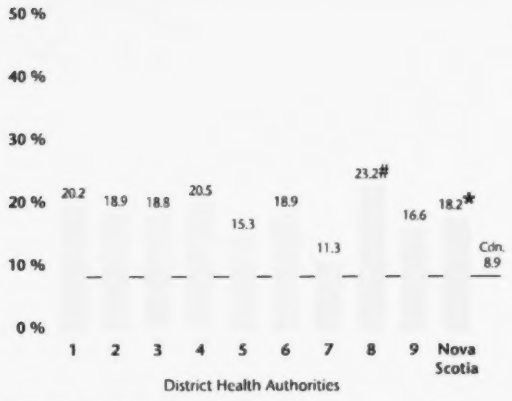
* Significantly higher than all other DHAs.

\# Significantly lower than most other DHAs.

All areas had about 6% to 20% in the lowest/lower middle category, with DHA 9 having significantly fewer households than most other DHAs in this category.

DHA 9 had significantly fewer households than most other DHAs in the middle category, and significantly more households than all other DHAs in the highest category.

Some food insecurity in past 12 months



* Significantly higher than Canada.

\# Significantly higher than DHA 7.

Food Insecurity

Food insecurity indicates whether the respondent has enough money to eat properly.

The respondent is considered to have experienced food insecurity if any of the following conditions are met:

1 the respondent or someone else in the household worried that there would not be enough to eat because of a lack of money
2 the respondent or someone else in the household did not have enough to eat because of a lack of money
3 the respondent or someone else in the household did not eat the quality or variety of foods that they wanted to eat because of a lack of money.

This measure indicates that between 11% and 23% of all Nova Scotian households reported some concern about having enough money to eat properly.

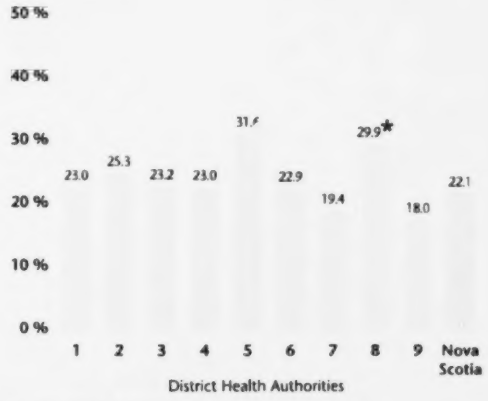
The reported rate of food insecurity in Nova Scotia (18.2%) is significantly higher than the Canadian rate (8.9%). Within Nova Scotia, DHA 7 reported the least food insecurity, and DHA 8 reported the most. A significant difference was also seen between these two DHAs.

Second-hand Smoke

Between 18% and 32% of all households had at least one smoker who smokes inside the house regularly.

A significant difference was observed between DHA 9, which had the lowest rate (18.0%), and DHA 8, which had the second highest rate (29.9%). The rate of DHA 8 was also significantly higher than Nova Scotia as a whole (22.1%).

Does anyone in this household smoke inside the house, every day or almost every day?

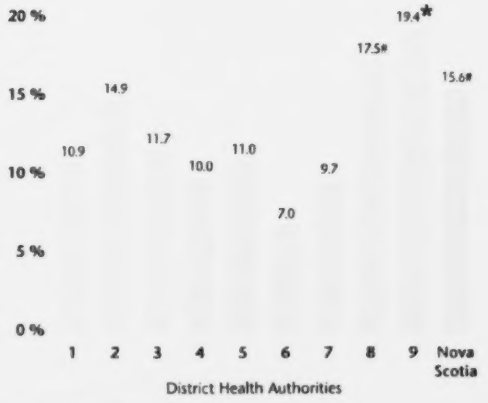


* Significantly higher than DHA 9 and Nova Scotia.

Between 7% and 20% of all non-smokers reported being exposed to second-hand smoke in public places in the past month.

DHA 9 respondents reported the most exposure to second-hand smoke in public places, and the estimate is significantly different from those of DHAs 3, 4, 6, and 7. DHA 8 respondents reported the second-highest level of exposure to second-hand smoke in public places, and the estimate is significantly different from that of DHA 6, which reported the least exposure to second-hand smoke in public places.

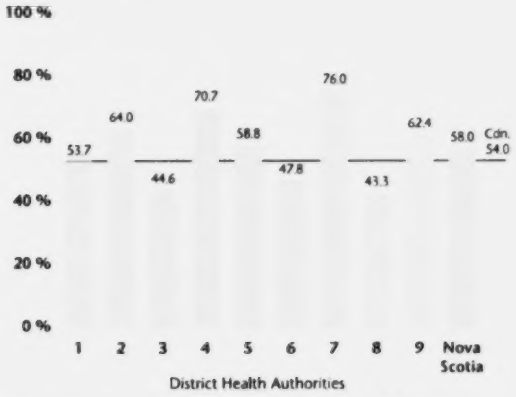
In the past month, were you exposed to second-hand smoke every day or almost every day, in public places?



This question was asked of non-smokers.

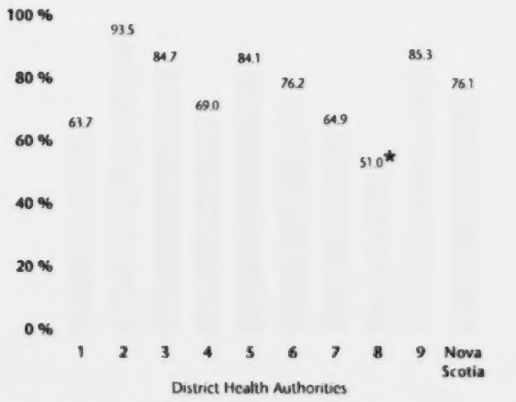
* Significantly higher than DHA 3, 4, 6, 7.
\# Significantly higher than DHA 6.

Did you take a vitamin supplement containing folic acid before your (last) pregnancy?



This question was asked of women who have given birth in the last five years.

Did you breastfeed or try to breastfeed your baby even if only for a short time?



This question was asked of women who have given birth in the last five years.

* Significantly lower than DHA 2 and DHA 9.

Healthy Childhood Development

Many factors have an impact on the health of children during the prenatal period, throughout their development, and well into their later life. These factors include such things as the mother's lifestyle choices, nutrition, and environment. The following section presents CCHS results concerning prenatal health.

Folic Acid

Folic acid has been shown to reduce congenital neurological problems.

Generally speaking, female respondents in Nova Scotia who have given birth in the last five years took folic acid slightly more often (58.0%) than the Canadian rate (54.0%).

No significant differences were reported between DHAs.

Breastfeeding

Studies have increasingly shown the benefits of breastfeeding on the health of infants.

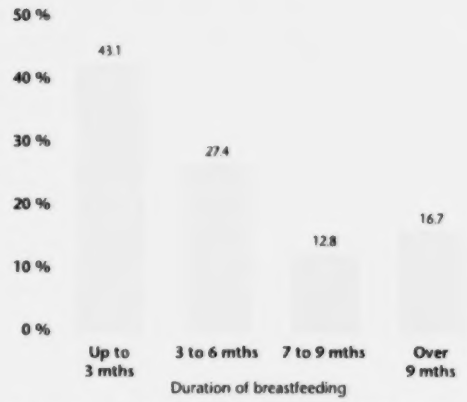
Overall, an average of 76.1% of female respondents in Nova Scotia who have given birth in the last five years breastfed or tried to breastfeed.

Despite the apparent variation between DHAs, only two significant differences were reported: significantly fewer women in DHA 8 breastfed than did so in DHA 2 and DHA 9.

The duration of breastfeeding for female respondents who have given birth in the last five years could not be reported for most DHAs according to the Statistics Canada guidelines (please see Appendix 2). Only the provincial rates of the duration of breastfeeding are provided.

Most women in Nova Scotia breastfed their last baby for up to three months (43.1%), and quite a few did for more than nine months (16.7%).

How long did you breastfeed your last baby? (Nova Scotia)



This question was asked of women who have given birth in the last five years and who have breastfed.

Alcohol, Smoking, and Pregnancy

Smoking or drinking alcohol during pregnancy can lead to serious health problems for the infant including low birth weight, premature delivery, and fetal alcohol syndrome, among others. According to a joint statement of the Canadian Paediatric Society and 17 other co-signatories, fetal alcohol syndrome refers to a set of alcohol-related disabilities directly associated with the use of alcohol during pregnancy[1].

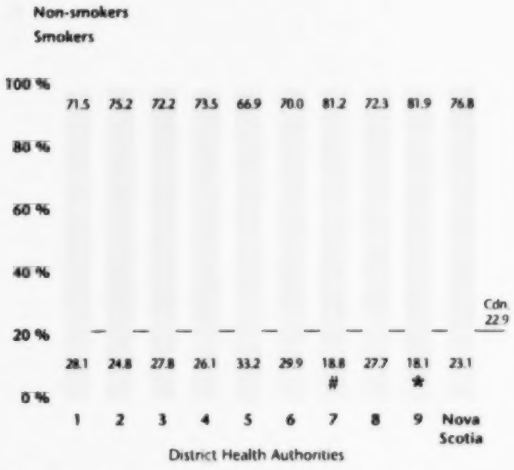
Among Nova Scotian women who have given birth in the last five years, 22% reported they smoked and 9% reported they drank alcohol during their last pregnancy. The rates for DHAs could not be reported according to the Statistics Canada guidelines (please see Appendix 2).

Did you smoke or drink alcohol during your last pregnancy? (Nova Scotia)

This question was asked of women who have given birth in the last five years.

1. "Prevention of Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects (FAE) in Canada". *Paediatric & Child Health* 1997;2(2):143-5.

Self-reported type of smoker



* Significantly lower than Nova Scotia and most other DHAs.

Significantly lower than DHA 5 and DHA 6.

Personal Health Practices

The CCHS provides a wealth of data on personal health practices. These health practices are a potential avenue for health improvement that is within the control of the individual. For instance, when smokers quit smoking, they potentially improve their health and life expectancy. Also, health service providers can target educational materials to specific "unhealthy" practices and populations and thereby encourage change.

Smoking

Smoking has repeatedly been shown to cause detrimental health effects for smokers and those around them. This measure reports daily smokers and occasional smokers as "smokers" and those who either quit or never smoked as "non-smokers." Overall, about 23% of Nova Scotians smoke.

DHA 9 reported significantly fewer smokers than Nova Scotia as a whole and all but two of the other DHAs (DHA 2 and DHA 7). DHA 7 has the second lowest rate of smokers, and the estimate is significantly different from those of DHA 5 and DHA 6. There was no significant difference between Nova Scotia and Canada.

Alcohol Use

Roughly 20% of the people who had a drink in their lifetime regularly drank 12 or more drinks per week. No statistically significant differences were reported.

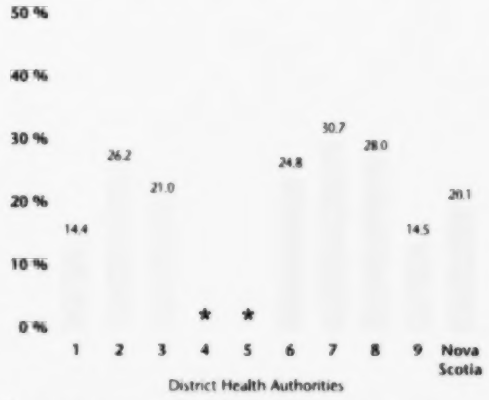
Alcohol and Driving

Respondents were asked whether they had been a passenger with a driver who had two or more drinks in the hour before driving. Their responses suggest an approximate estimate of the frequency of driving under the influence of alcohol.

In Nova Scotia as a whole, approximately 11% of respondents reported driving with a driver who had two or more drinks in the hour before driving.

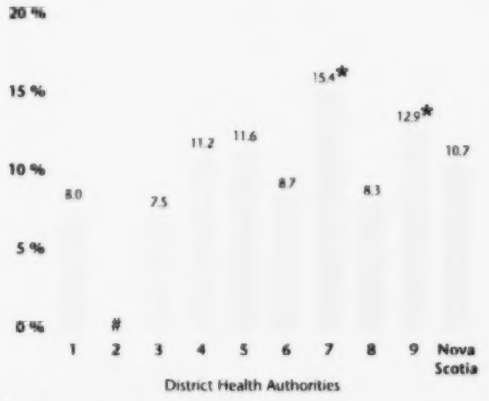
Respondents in DHA 7 reported the highest rate of "being a passenger with a driver who had 2 or more drinks in the hour before driving" at 15.4%, followed by DHA 9 at 12.9%. These two estimates are both significantly higher than that of DHA 3, which had the lowest rate of 7.5%.

Respondents who regularly drink more than 12 drinks per week as percentage of those reporting alcohol consumption



* Estimates could not be reported according to Statistics Canada guidelines (see Appendix 2).

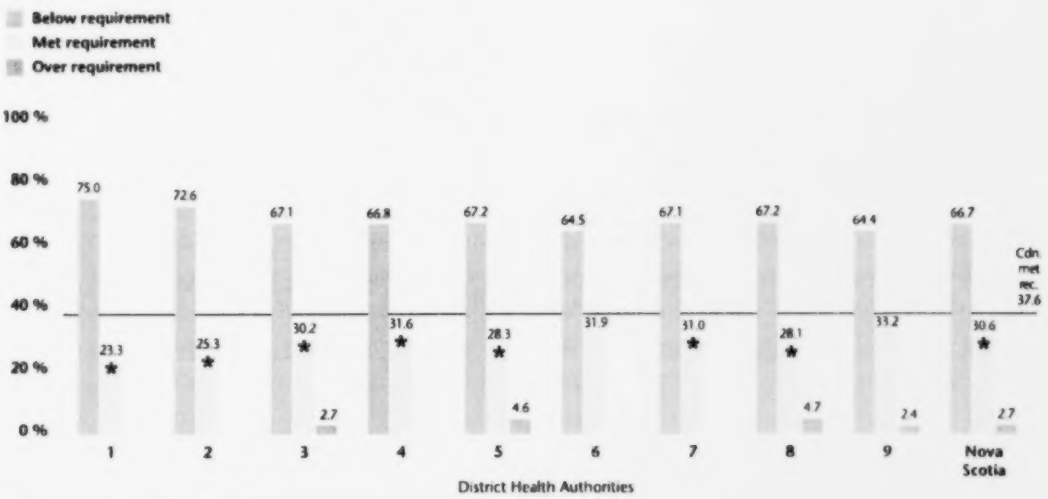
In past 12 months, respondents who had been a passenger with a driver who had two or more drinks



* Significantly higher than DHA 3.

\# Estimate could not be reported according to Statistics Canada guidelines (see Appendix 2).

Fruit and vegetable consumption



★ Significantly lower than Canada.
Estimates could not be reported for "Over requirement" data for DHA 1, 2, 4, 6, and 7 according to Statistics Canada guidelines (see Appendix 2).

Fruit and Vegetable Consumption

The Canada Food Guide recommends that we consume 5 to 10 servings of fruits and vegetables per day.

The CCHS fruit and vegetable consumption measure is calculated from responses to questions on the number of daily servings of fruit juice, fruit, green salad, potatoes, carrots, and other vegetables.

Those listed as "below requirement" consumed fewer than 5 fruit and vegetable servings per day.

Those who "met requirement" consumed between 5 and 10 servings of fruit and vegetables per day.

Those listed as "over requirement" consumed over 10 servings of fruit and vegetables per day.

Significantly fewer people met the requirement for fruit and vegetable intake in DHA 1 (23.3%) compared to DHA 9 (33.2%) and Nova Scotia as a whole (30.6%).

The self-reported rates of "met requirement" in Nova Scotia as a whole (30.6%) and most DHAs (except DHA 6 and DHA 9) are significantly lower than in Canada (37.6%).

Physical Activity

Regular exercise is vital to an individual's health.

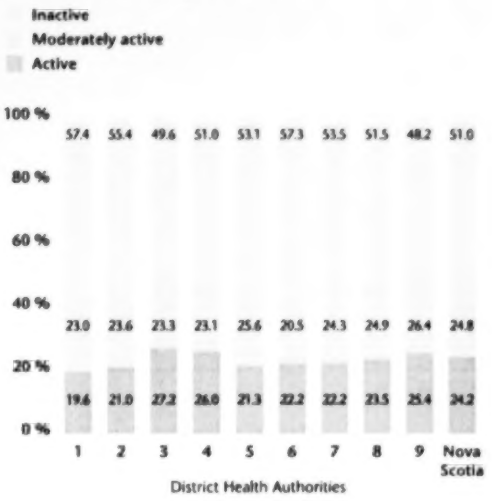
About 49% of Nova Scotians reported being active or moderately active. The majority of Nova Scotians remain inactive.

No significant difference of physical activity level was reported among the DHAs.

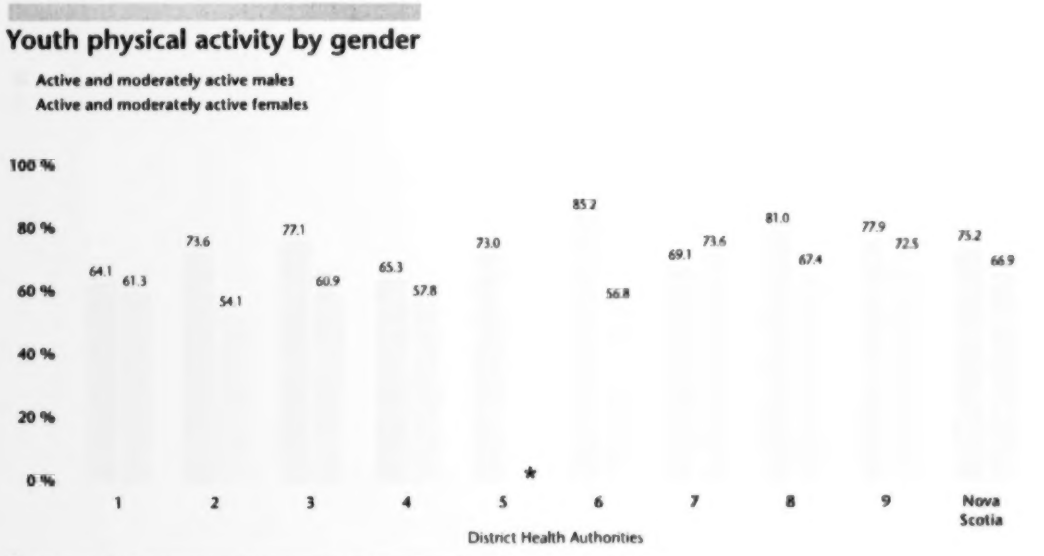
Youth 12 to 19 in Nova Scotia as a whole are quite active. Males are on average more likely to be physically active or moderately active than females.

However, despite the apparent variation by gender and DHA, no significant difference was reported.

Physical activity index

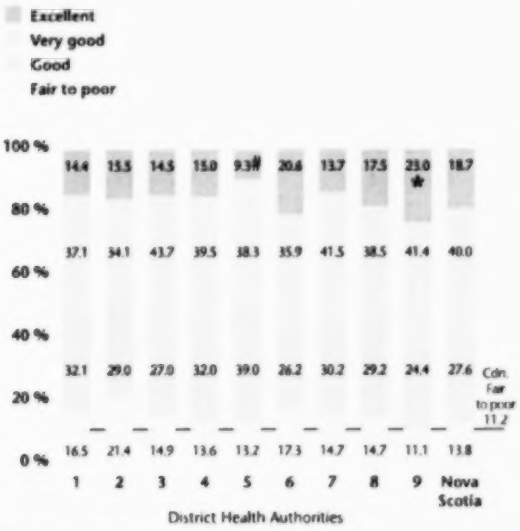


Youth physical activity by gender


Active and moderately active males
Active and moderately active females
100 %
80 %
60 %
40 %
20 %
0 %
64.1 61.3 73.6 54.1 77.1 60.9 65.3 57.8 73.0 * 85.2 56.8 69.1 73.6 81.0 67.4 77.9 72.5 75.2 66.9
1 2 3 4 5 6 7 8 9 Nova Scotia
District Health Authorities

* Estimates could not be reported according to Statistics Canada guidelines (see Appendix 2).

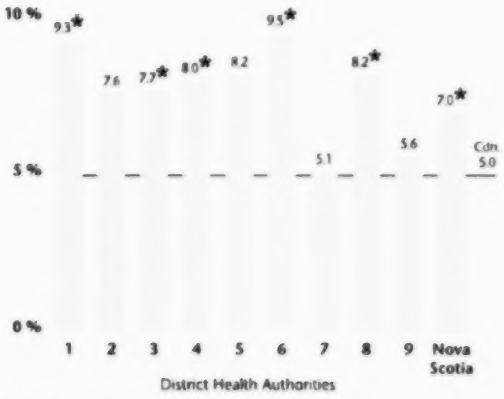
Self-perceived health status



* Significantly higher than most other DHAs.

\# Significantly lower than DHA 6, DHA 9, and Nova Scotia.

Self-reported diagnosis of heart disease



* Significantly higher than Canada

Current Health Status

Current health status provides an overall "snapshot" of the health of a population. Current health status measures include self-perceived health status, chronic conditions, body mass index (BMI), and opinion of own weight.

Health Status

The data from CCHS reaffirm other research that shows that Nova Scotians report poor to fair health significantly more often than Canada as a whole (13.8% and 11.2% respectively).

DHA 9 had significantly more people reporting excellent health than all but two DHAs (DHA 3 and DHA 6), whereas DHA 5 had significantly fewer people reporting excellent health than DHA 6, DHA 9, and Nova Scotia as a whole.

Heart Disease

Between 5% and 10% of Nova Scotians report having been diagnosed with heart disease.

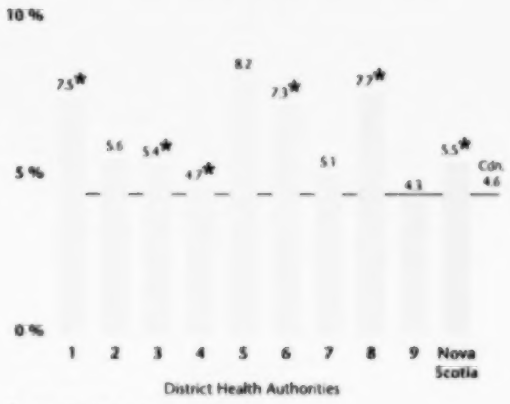
Nova Scotians and most DHAs (DHA 1, 3, 4, 6, and 8) reported significantly higher rates of heart disease than Canada (5.0%).

Diabetes

Between 4% and 9% of Nova Scotians reported having diabetes.

The percentage of self-reported diagnosis of diabetes for Nova Scotia (5.5%) and for most DHAs (DHA 1, 3, 4, 6, and 8) is significantly higher than Canada as a whole (4.6%).

Self-reported diagnosis of diabetes



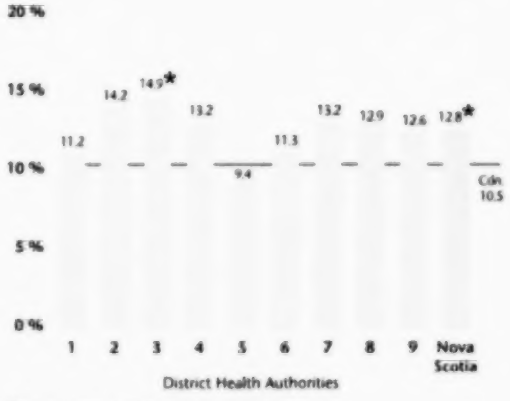
* Significantly higher than Canada.

Respiratory Illness

Between 9% and 15% of Nova Scotians reported having a chronic respiratory disease.

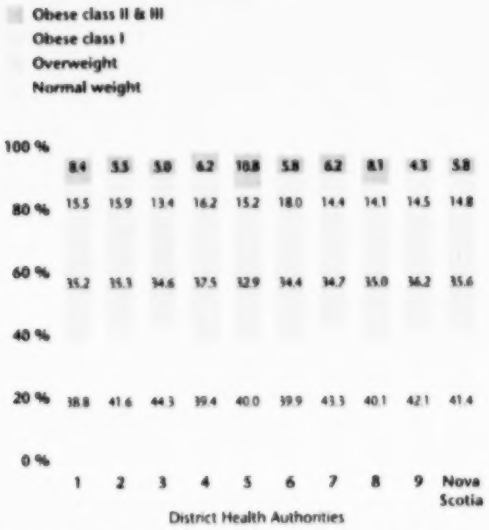
Significantly more Nova Scotians (12.8%) reported diagnosis of respiratory illness than Canada as a whole (10.5%). DHA 3 also reported significantly more respiratory illness than the rest of Canada.

Self-reported diagnosis of asthma, chronic bronchitis, emphysema, or chronic obstructive pulmonary disease



* Significantly higher than Canada.

Body Mass Index (BMI)



Estimates for "underweight" could not be reported for most DHAs according to Statistics Canada guidelines. This question was asked of respondents aged 18 years or older.

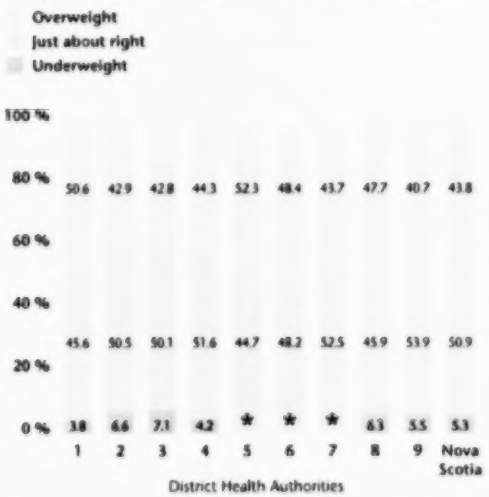
Obesity

Obesity is a risk factor for heart disease, strokes, cancer, kidney failure, asthma, arthritis, blindness, mental health problems, and falls[1].

The majority of Nova Scotians (56%) are overweight or obese.

No significant differences were reported among the DHAs and weight categories.

Respondent's opinion of own weight



* Estimates could not be reported for "underweight" data according to Statistics Canada guidelines (see Appendix 2).

Very few Nova Scotians (5.3%) rated themselves as underweight.

About 50.9% of Nova Scotians rated themselves as "just about right" in terms of weight, and about 43.8% rated themselves as "overweight."

DHA 9 reported the lowest percentage of people who feel that they are overweight (40.7%), whereas DHA 5 reported the highest (52.3%). No significant differences were reported among the DHAs.

1. *Obesity in Canada: Identifying policy priorities*. Canadian Institute for Health Information. 2003.

Health Services

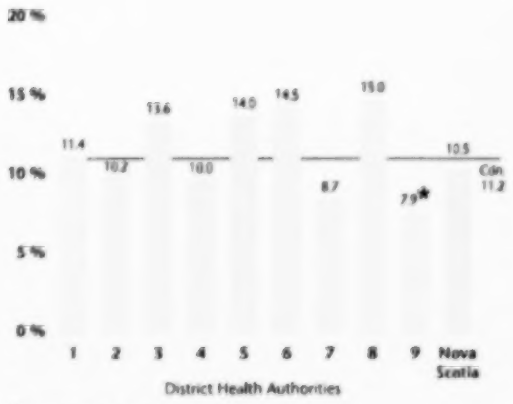
Health services questions can provide insight into health services utilization, perceptions of service adequacy, and service mix.

Unmet Health Care Needs

Between 8% and 15% of all Nova Scotians reported having self-perceived unmet health care needs.

DHA 9 reported the least self-perceived unmet health care needs and is significantly different from DHAs 3, 6, and 8.

In the last 12 months did you ever feel you needed health care but didn't receive it?



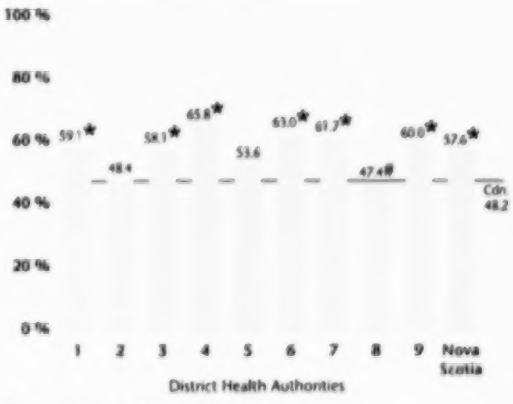
★ Significantly lower than DHA 3, 6, and 8.

Pap Test

Between 47% and 66% of female Nova Scotians reported having had a PAP smear in the last year.

Significantly more women in Nova Scotia reported having had a PAP smear in the last year than the Canadian rate (57.6% and 48.2% respectively). Most DHAs (DHA 1, 3, 4, 6, 7, and 9) also reported significantly higher rates than Canada. Within Nova Scotia, DHA 8 reported significantly lower percentage of females who have had a PAP smear than DHA 4, DHA 6, and Nova Scotia as a whole.

Respondents who have had a PAP smear in the past 12 months

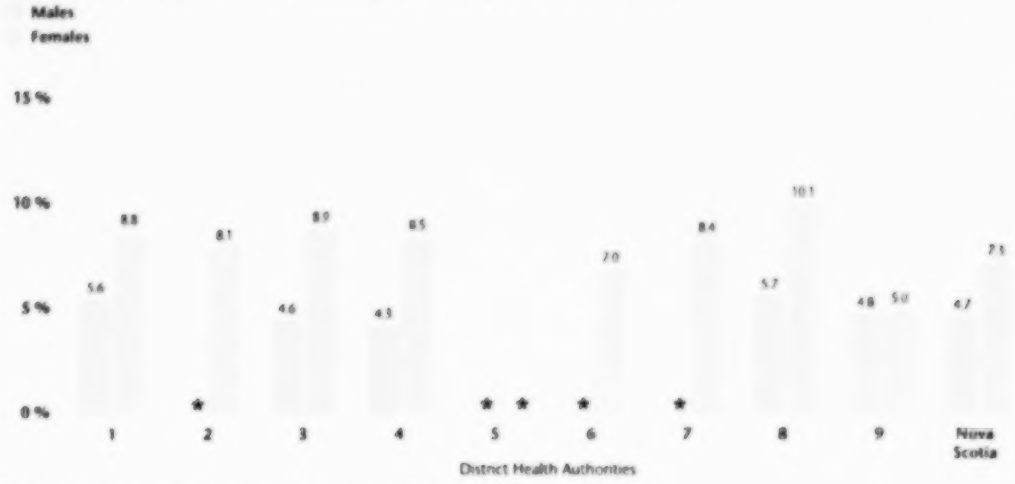


★ Significantly higher than Canada.

Significantly lower than DHA 4, DHA 6, and Nova Scotia.

This question was asked of female respondents aged 18 years or older.

Home care services received by gender of respondent



* Estimates could not be reported according to Statistics Canada guidelines (see Appendix 2).

Home Care

Respondents to the questions regarding home care services were 18 or over.

Overall, significantly more women than men in Nova Scotia reported receiving home care services (7.3% and 4.7% respectively). No significant differences were reported between DHAs.

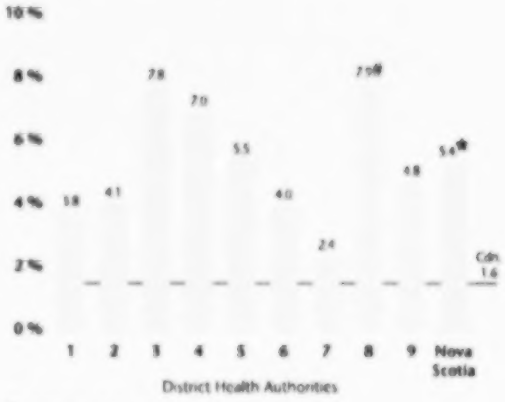
Disability

This measure is based on the Health Utility Index (HUIn_14-18).

Respondents were considered to be disabled if they answered "yes" to questions addressing mobility problems (regardless of whether they corrected those problems with or without the use of walking aids). To be considered disability free, respondents reported no mobility problems.

Significantly more Nova Scotians reported mobility disability than Canada (5.4% and 1.6% respectively). Significant difference was also reported between DHA 8 and DHA 7 (7.9% and 2.4% respectively).

Mobility disability



* Significantly higher than Canada.
\# Significantly higher than DHA 7.

Appendix 1
CCHS 2.1 Modules for Nova Scotia

Health Status	CCHS 2.1 Modules
Health Status	General Health
	Chronic Conditions
	Oral Health
Health Determinant	**CCHS 2.1 Modules**
Social & Physical Environment	Household Composition
	Food Insecurity
	Socio-Demographic Characteristics
	Exposure to Second-hand Smoke
Education	Socio-Demographic Characteristics (Education)
Income & Social Status	Income
	Insurance
Employment & Working Conditions	Labour Force
Personal Health Practices	Changes Made to Improve Health
	Food Choices
	Fruit and Vegetable Consumption
	Physical Activities
	Leisure Activities
	Smoking
	Youth Smoking
	Alcohol Consumption
	Driving & Safety
	Sexual Behaviour
Individual Capacity & Coping Skills	Injuries
	Two-week Disability
	Restriction of Activities
	Self-esteem
Genetics	Height/Weight (BMI)
Gender	Sex
Health Services	Health Care Utilization
	Home Care
	Blood Pressure Check
	Flu Shots
	PAP Smear Test
	Mammography
	Health Utility Index
	Waiting Times
	Patient Satisfaction
Culture	Socio-Demographic Characteristics (Ethnicity)
Healthy Child Development	Maternal Experiences

Appendix 2
Survey Design, Sampling, and Bootstrapping

The survey did not employ a simple random sample of Canadians; it employed a more complex cluster sampling design of households and involved respondents aged 12 years plus.

The responses to the survey were distributed by Statistics Canada to the provinces as encrypted raw scores (to roughly 2,000 variables) for those respondents who agree to share their responses with the various health departments.

The data are also provided with three sets of population weights to create point estimates. (Please see the Table of "Raw Samples and Weighted Samples for DHAs.")

Once the point estimate is generated, its variance, reflecting the reliability of the estimate, needs to be calculated.

Since the sample design was non-random, a complex method of estimating the variance needs to be applied.

Statistics Canada provided a "bootstrapping method," which calculates the point estimate using 500 different weights; creates a mean value for the point estimates; and then calculates the variance and 95% confidence intervals for that estimate.

The differences between point estimates, within the same measure, are said to be statistically significant when the confidence intervals do not overlap. For instance, within the measure "Income Adequacy," if the confidence intervals for the point estimate from DHA 1 and those for the point estimate from Nova Scotia do not overlap, then the DHA 1 point estimate is statistically different from the Nova Scotia point estimate.

The bootstrapping method also produces the coefficient of variation, which is used to decide if a point estimate could be reported. Data with a coefficient of variation (CV) from 16.6% to 33.3% should be interpreted with caution. Data with a coefficient of variation (CV) greater than 33.3% are suppressed due to extreme sampling variability.

Raw Samples and Weighted Samples for DHAs

DHAs	Sample			Weighted Sample		
	Male	Female	Total	Male	Female	Total
1	152	184	336	26,405	26,655	53,060
2	174	222	396	27,012	28,501	55,513
3	253	355	608	33,260	36,102	69,362
4	220	245	465	31,683	32,026	63,709
5	89	121	210	12,589	14,281	26,870
6	146	208	354	14,763	20,650	35,413
7	150	172	322	24,996	20,714	45,710
8	338	468	806	52,610	57,287	109,897
9	553	714	1,267	162,382	175,604	337,986
Nova Scotia	2,076	2,690	4,766	385,754	411,847	797,601

This table compares the number of respondents sampled to their corresponding representative population estimate (weighted sample). For example, 184 women sampled for DHA 1 represent 26,655 women in DHA 1. The magnitude of the differences between those actually sampled and their corresponding population representation illustrates the need for very accurate variance calculations in order to establish the reliability of the point estimates and thus the necessity of the bootstrapping methodology.

Appendix 3
Guide to Data Interpretation

- The data provided in this report are point estimates with bootstrapping methodology applied to determine statistical significance where necessary.
- Graph titles reflect the actual question from the survey, abbreviated if necessary.
- Statistically significant findings (95% confidence) are discussed in the text section of the report and reflect the differences between the DHAs and Nova Scotia, unless otherwise specified.
- Care must be used in interpreting non-statistically different point estimates.
- The fewer the respondents, the greater the confidence interval around the point estimate.
- All data are presented as percentages.
- For all graphs y-axis label "percentage" is to be read as "percentage of the total estimated population," unless otherwise specified.